

REGULATORY IMPACT REVIEW AND
FINAL REGULATORY FLEXIBILITY ANALYSIS

Southwest Region
National Marine Fisheries Service

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**REGULATORY IMPACT REVIEW AND
REGULATORY FLEXIBILITY ACT DETERMINATION**

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Regulatory Impact Review and Regulatory Flexibility Act Determination

None of the proposed management actions contained in the Pacific Fishery Management Council's (PFMC) proposed Fishery Management Plan for U.S. West Coast Fisheries for Highly Migratory Species (FMP) (FMP) would be a significant action according to E.O. 12866. The proposed actions will not have a cumulative effect on the economy of \$100 million or more, nor will they result in a major increase in costs to consumers, industries, governmental agencies, or geographical regions. No significant adverse impacts are anticipated on competition, employment, investments, productivity, innovation, or competitiveness of U.S.-based enterprises. The Small Business/Entities analysis (Section 2.0) addresses requirements of the Regulatory Flexibility Act (RFA).

1.0 Executive Order 12866 - Regulatory Impact Review

The purpose of a Regulatory Impact Review (RIR) is to determine whether any of the proposed actions could be considered "significant regulatory actions" according to E.O. 12866. Much of the information required for the RIR analysis is presented in Chapter 9 of the FMP. The following table provides the FMP references for those required elements of the RIR analysis.

Regulatory Impact Review - Elements of Analysis

RIR Elements of Analysis	Corresponding Sections in FMP
Description of management objectives	Chapter 8, Section 8.3.3
Description of the fisheries	Chapter 2
Statement of the problems	Chapter 1, Section 1.5
Description of each alternative	Chapter 8
Economic analysis of the expected effects of each selected alternative relative to <i>status quo</i>	Chapter 9

The focus of the RIR is on the incremental changes in net economic benefits, due to a HMS regulatory action relative to the status quo; i.e., the difference between net benefits under the proposed action and net benefits if no action were taken. Net benefits are evaluated within a benefit-cost framework, where the change in net benefits (economic benefits minus economic costs) resulting from HMS management are those realized by society as a whole. Economic benefits are measured by society's willingness to pay for HMS products, the difference between what consumers actually pay and what they would be willing to pay. Economic benefits to society would also include non-market benefits, i.e., economic values that are not embodied in the market price of commercially produced HMS products. Non-market benefits can consist of non-consumptive benefits that society derives from the protection and preservation of marine species (existence value) afforded by HMS conservation and management practices, as well as recreational benefits enjoyed by HMS anglers. Economic costs, or opportunity costs, represent the value of other goods and services society foregoes by using scarce productive resources (e.g. capital, labor, energy) to produce HMS products. The opportunity cost of a productive resource may not be captured in a market price, and therefore may not be the same as the out of pocket, or private, expense incurred by producers. Economic costs would also include any external costs related to the production of HMS products. External costs are not borne by private producers, but are a cost to society (potential water pollution generated from the production of HMS products is a hypothetical example). In this context, the net economic benefits to society from the harvesting, processing and consumption (or non-consumption) of HMS products may not be the same as the private or financial profits realized by commercial suppliers of HMS products.

Net economic benefits from HMS fisheries consist of two components: producer surplus, which for those involved in the commercial and party/charter harvesting, commercial processing and sales of HMS products are measured as the difference between gross revenues and all economic costs of supplying HMS products, and consumer surplus, the value of HMS products to consumers over and above the actual price they pay. Consumer surplus would also account for the non-consumptive and recreational values provided by HMS.

The commercial harvesting sector is expected to be the HMS sector most impacted by the proposed HMS regulatory actions. Under certain regulatory alternatives they will experience changes in catches and landings. Thus, changes in net economic benefits due to management will be reflected in changes in producer surplus for commercial HMS harvesters. Producer surplus further up the commercial supply chain is less likely to be affected by management because readily available imports of HMS will substitute for any shortfall in domestic supply. This also applies to consumer surplus. To the extent that foreign-caught HMS are good substitutes for domestic-caught HMS, there would not be any change in consumer surplus from a shortfall in domestic HMS landings. Changes in consumer surplus associated with the non-consumptive and recreational values provided by HMS also need to be accounted for.

Using data from cost and earnings surveys of HMS fishers, quantitative changes in producer surplus for the commercial harvesting sector, due to management, were estimated from empirically based economic models (Herrick et al 2003, Squires et al 2003). In the absence of empirical information, changes in consumer surplus associated with the non-consumptive and recreational values provided by HMS are more conjectural and difficult to affirm. Where empirical data were lacking, qualitative impacts of management were inferred from economic theory. Estimates of changes in producer surplus due to management are summarized in the following table as the present value of changes in producer surplus relative to the status quo discounted over a 25 year time period at 7% and 4% discount rates.

NQ+ = non-quantifiable positive; NQ- = non-quantifiable negative; NC = no change from status quo; UN = unknown.

Alternative	Change in the Present Value of Producer Surplus Relative to the Status Quo (Over 25-Year Time Horizon)	Average Annual Change in Producer Surplus Relative to the Status Quo
Drift Gillnet Regulatory Alternatives		
Drift Gillnet Alternative 1: Continues the swordfish/shark drift gillnet (DGN) fishery regulations under current state and federal authorities. (Status quo/No action)	NC	NC
Drift Gillnet Alternative 2: Differs from status quo with the imposition of a year round Oregon closure inside 1000 fm (or way point equivalent), and the closure of Exclusive Economic Zone (EEZ) waters off Washington to all drift gillnet fishers. (Proposed Action)		-\$103,170
7% Discount Rate	-\$1,202,302	
4% Discount Rate	-\$1,611,734	
Drift Gillnet Alternative 3: Endorses or adopts only existing federal Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) drift gillnet regulations into the FMP; defers to state regulations; no difference from status quo.		NC
7% Discount Rate	NC	
4% Discount Rate	NC	

Alternative	Change in the Present Value of Producer Surplus Relative to the Status Quo (Over 25-Year Time Horizon)	Average Annual Change in Producer Surplus Relative to the Status Quo
Drift Gillnet Alternative 4: Endorses or adopts all federal conservation and management measures in place under the MMPA and ESA, and adopts state regulations under Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) authority, but also includes and federalizes the states' limited entry programs; differs from status quo by the impact of federalizing states' limited entry programs. ¹		UN
7% Discount Rate	UN	
4% Discount Rate	UN	
Drift Gillnet Alternative 5: Adopts turtle time/area closures per Biological Opinion, including larger area closure north of Point Conception; differs from status quo by the impact of enlarging the closed area.		-\$222,318
7% Discount Rate	-\$2,590,796	
4% Discount Rate	-\$8,654,828	
Drift Gillnet Alternative 6: Prohibits the use of drift gillnets to take swordfish and sharks in any EEZ waters less than 1000 fm off Oregon and Washington; differs from status quo by the impact of closing this area. ²		\$279
7% Discount Rate	\$3,246	
4% Discount Rate	\$4,350	
Drift Gillnet Alternative 7: Drift gillnets could not be used to take swordfish and sharks in any EEZ waters north of 45E N latitude year round, including times when the northern turtle closure is not in effect (Nov 16 to Aug 14); differs from status quo by the impact of closing this area. ³		-\$7,780
7% Discount Rate	-\$90,659	
4% Discount Rate	-\$120,727	
Drift Gillnet Alternative 8: Drift gillnetting would be prohibited inside 75 nm off Oregon from May 1 to August 14 and inside the 1,000 fm curve the rest of the year, and EEZ waters off Washington would be closed year round to all, including Oregon- and California-based DGN fishers; differs from the status quo by the impact of the closures off Oregon and Washington to all fishers.		-\$103,449
7% Discount Rate	-\$1,205,548	
4% Discount Rate	-\$1,616,084	

Alternative	Change in the Present Value of Producer Surplus Relative to the Status Quo (Over 25-Year Time Horizon)	Average Annual Change in Producer Surplus Relative to the Status Quo
Pelagic Longline w/i the EEZ Regulatory Alternatives		
Pelagic Longline w/i the EEZ Alternative 1: Current state measures would remain in place under states' authorities and there would be no new federal regulations governing longline use in the EEZ. (Status Quo/No Action)	NC	NC
Pelagic Longline w/i the EEZ Alternative 2: Establishes a general prohibition on the use of pelagic longline gear in the EEZ. (Proposed Action)	NC	NC
Pelagic Longline w/i the EEZ Alternative 3: Prohibits longlining within the West Coast EEZ by indefinite moratorium, with the potential for re-evaluation by the Council following completion of a bycatch reduction research program with pre-established strict protocols. Must prove negligible impact on protected and bycatch species. (Ocean Wildlife Campaign Proposal) ⁴	NQ+	NQ+
Pelagic Longline w/i the EEZ Alternative 4: Authorizes a limited entry pelagic longline fishery for tunas and swordfish within the EEZ, with effort and area restrictions, to evaluate longline gear as an alternative to drift gillnet gear to reduce bycatch or bycatch mortality and protected species interactions. (Industry Proposal) ⁴	NQ+	NQ+
Pelagic Longline w/i the EEZ Alternative 5: Prohibits longlining within the West Coast U.S. EEZ with the potential for re-evaluation by the Council following completion of a tuna-swordfish-bycatch research experiment carried out under a qualified exempted fishing permit (EFP) to determine if longline gear can be fished in ways that produce bycatch and protected species interaction levels that are significantly less than by drift gillnets ($\alpha=0.05$). (Plan Team Proposal) ⁴	NQ+	NQ+
High Seas Pelagic Longline Regulatory Alternatives		
High Seas Pelagic Longline Alternative 1: States' regulations would apply to longline fishing and landings and federal regulations may be developed under other authorities. Vessels would have to obtain HSFCA permits and file HSFCA logbooks, as is now the case. (Status Quo/No Action) ⁵	NC	NC
High Seas Pelagic Longline Alternative 2 Applies to West Coast-based longline vessels fishing west of 150E W longitude all of the restrictions applied to Hawaii-based longline vessels, but east of 150E W longitude, applies <i>selected</i> restrictions, allowing West Coast-based vessels to target swordfish east of that line.		-\$7,043,899
7% Discount Rate	\$82,086,665	
4% Discount Rate	\$110,824,141	

Alternative	Change in the Present Value of Producer Surplus Relative to the Status Quo (Over 25-Year Time Horizon)	Average Annual Change in Producer Surplus Relative to the Status Quo
High Seas Pelagic Longline Alternative 3: Applies to West Coast-based longline vessels all conservation and management measures applied to Hawaii-based longline vessels to control sea turtle and seabird interactions and to monitor the fishery. (Proposed Action) ⁶		NC
7% Discount Rate	NC	
4% Discount Rate	NC	
Purse Seine Regulatory Alternatives		
Purse Seine Alternative 1: State area closures would remain in effect under states' authorities. (Status Quo/No Action)	NC	NC
Purse Seine Alternative 2: Opens the entire EEZ to purse seine fishing. (Proposed Action)	NQ+	NC
Purse Seine Alternative 3: Closes the area within the EEZ north of 45E N latitude to purse seine fishing to address bycatch and protected species concerns, and possible adverse impacts on other fisheries.	NQ-	NC
Purse Seine Alternative 4: Closes the EEZ off Washington to purse seine fishing, but allows it off Oregon and California.	NQ-	NC
Marlin Sales Regulatory Alternatives		
Marlin Sales Alternative 1: The sale of striped marlin would not be prohibited by federal regulation in this FMP, but would continue to be prohibited by the State of California. (Status Quo/No Action)	NC	NC
Marlin Sales Alternative 2: Prohibits the sale of striped marlin by vessels under PFMC jurisdiction. (Proposed Action)	NC	NC
Commercial Permit Regulatory Alternatives		
Commercial Permit Alternative 1: Require no new federal permits. Federal permits under other laws (e.g. HSFCA) would remain in place, as would state permit requirements. (Status Quo/No Action)	NC	NC
Commercial Permit Alternative 2: Requires a federal permit for HMS vessels with a specific endorsement for each gear type (harpoon, drift gillnet, surface hook and line, purse seine, and pelagic longline). The permit is to be issued to a vessel owner for each specific fishing vessel used in commercial HMS fishing. (Proposed Action)	NQ-	NQ-

Alternative	Change in the Present Value of Producer Surplus Relative to the Status Quo (Over 25-Year Time Horizon)	Average Annual Change in Producer Surplus Relative to the Status Quo
Commercial Permit Alternative 3 Requires a federal permit for all vessels engaged in commercial HMS fisheries within and outside the EEZ. One permit would cover all HMS fisheries for a given vessel.	NQ-	NQ-
Commercial Permit Alternative 4 Requires a federal permit for all vessels engaged in <i>selected</i> commercial fisheries. Initial candidates for permits would be vessels engaged in DGN and longline fisheries.	NQ-	NQ-
Recreational Permit Regulatory Alternatives		
Recreational Permit Alternative 1 Requires no new federal permits for recreational vessels, private or party/charter. (Status Quo/No Action)	NC	NC
Recreational Permit Alternative 2 Requires a federal permit for all commercial passenger fishing vessels (CPFV) that fish for HMS, but an existing state permit or license for recreational vessels could meet this requirement. The Council would, however, request states to incorporate in their existing CPFVs permit systems an allowance for an HMS species endorsement on permits, so that statistics could be gathered on that segment of the HMS fishery. (Proposed Action)	NQ-	NQ-
Recreational Permit Alternative 3: Requires a separate federal permit for all CPFVs that fish for HMS; a state permit could not be used to fill this requirement, as in Alternative 2.	NQ-	NQ-
Recreational Permit Alternative 4 Requires a federal permit for <i>all</i> recreational fishing vessels (private, party and charter/CPFV) that fish for HMS within and outside the EEZ.	NQ-	NQ-
Reporting Requirements Regulatory Alternatives		
Reporting Requirements Alternative 1: There would be no new federal requirements for reporting, including federal provisions for filling out Far Offshore Fishing Declarations. Existing federal reporting requirements (e.g., HSFCA reports for fishing on the high seas) and state reporting requirements would apply. (Status Quo/No Action)	NC	NC
Reporting Requirements Alternative 2 Requires all commercial and recreational party or charter/CPFV fishing vessels to maintain and submit logbooks to National Marine Fisheries Service (NMFS). State or existing federal logbooks could meet this requirement as long as essential data elements are present, and data are available to NMFS subject to a data exchange agreement. (Proposed Action)	NQ-	NQ-

Alternative	Change in the Present Value of Producer Surplus Relative to the Status Quo (Over 25-Year Time Horizon)	Average Annual Change in Producer Surplus Relative to the Status Quo
Reporting Requirements Alternative 3: Limits new federal reporting requirements to those commercial vessels that are not already required to report under existing federal laws.	NQ-	NQ-

Note: Quantitative estimates of producer surplus based on cost and earnings data collected through industry surveys.

- ¹ The incremental change due to adoption of the states' limited entry programs is unknown.
- ² Short-run producer surplus increases with the closure under Alternative 6. Effort is assumed to be redirected outside of the closed area where catch per unit effort is greater (larger fish harvested outside the closed area) thereby yielding higher revenues for minimal difference in costs.
- ³ Producer surplus decreases with the closure under Alternative 7. Effort is assumed to be redirected outside the area where catch per unit effort is lower (smaller fish harvested outside the closed area) thereby yielding lower revenues for minimal difference in costs.
- ⁴ The expected increase in producer surplus is associated with research findings that then lead to the development of a pelagic longline fishery within the West Coast EEZ (see Chapter 9 section 9.2.5.2.1).
- ⁵ Under Alternative 1 the FMP would not impose any regulations on the West Coast-based longline fishery targeting swordfish on the high seas. In the short-run, producer surplus from this fishery would continue. However, in time regulations promulgated under other authorities are expected to eliminate this fishery, which is then the long-run status quo (see Chapter 9 section 9.1.1).
- ⁶ Alternative 3 would effectively prohibit targeting swordfish by the West Coast-based high seas pelagic longline fishery.

The following table summarizes the analyses of the proposed regulatory actions in terms of RIR evaluation factors.

RIR Tests of "Significant Regulatory Actions"

E.O. 12866 Test of "Significant Regulatory Actions"	D r i f t Gillnet	Pelagic Longline w/i the EEZ	H i g h S e a s Pelagic Longline	Purse Seine	Marlin Sales	Commercial Permit	Recreational Permit	Reporting Require- ments
Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs or the environment, public health or safety, or State, local, or tribal governments or communities?	No	No	No	No	No	No	No	No
Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency?	No	No	No	No	No	No	No	No
Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof?	No	No	No	No	No	No	No	No
Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in E.O. 12866?	No	No	No ¹	No	No	No	No	No

2.0 Impacts on Small Entities – Initial Regulatory Flexibility Analysis

The RFA requires government agencies to assess the effects that various regulatory alternatives would have on small entities, including small businesses, and to determine ways to minimize those effects. An Initial Regulatory Flexibility Analysis (IRFA) is typically prepared at the proposed rule stage, and the Final Regulatory Flexibility Analysis (FRFA) is prepared at the final rule state. For the PFMC's proposed HMS FMP, the IRFA was integrated into the FMP document as Appendix H (August 2003), and the analysis evaluated the differential impacts of the measures proposed by the PFMC and the alternatives considered. The proposed FMP, however, was only partially approved; a measure that would have allowed swordfish targeting by longline fishing vessels operating on the high seas but east of 150° W. Longitude was disapproved. Therefore, this FRFA reflects the impacts of the approved measures of the HMS FMP and a companion rule being promulgated by NMFS under the authority of the Endangered Species Act (ESA) that would prohibit such swordfish targeting. The criteria for determining small business impacts remain the same. A fish-harvesting business is considered a "small" business by the Small Business Administration (SBA) if it has annual receipts not in excess of \$3.5 million. For related fish-processing businesses, a small business is one that employs 500 or fewer persons. For marinas and charter/party boats, a small business is one with annual receipts not in excess of \$5.0 million.

Commercial fishing vessels targeting HMS are expected to be the only types of small entities directly impacted by the proposed actions. Any regulatory action under the FMP that would result in a reduction in domestic landings of HMS are expected to be offset at the processor level by imports, at comparative prices. None of the Initial regulatory alternatives considered are expected to add to the costs or reduce revenues of marinas and charter/party boats.

A FRFA must include certain information elements. These are bulleted below, followed by information that addresses each element.

2.1 Actions and Alternatives Related to Fixed Elements of the FMP

Fixed elements in the FMP include:

- Species in the Management Unit (Chapter 8 section 8.3.1)
- Control Rules (Chapter 8 section 8.3.2)
- Goals and Objectives (Chapter 8 section 8.3.3)
- Framework Procedures (Chapter 8 section 8.3.4)
- Management Cycle (Chapter 8 section 8.3.5)

The fixed elements in the FMP are intended to establish an administrative framework for monitoring the fisheries, evaluating the effects and effectiveness of management, considering new information or conditions to determine the need for additional actions, and establishing a process for adoption and implementation of such additional actions without FMP amendments when possible. With regard to the operations and performance of HMS commercial fishing vessels, these elements do not regulate the fisheries or impose constraints on how they operate and do not affect the amount of fishing, the catch in the fisheries, the status of stocks or economic values from the fisheries (except for the control rule). For these reasons the actions and alternatives related to the fixed elements of the FMP were not evaluated through the IRFA.

2.2 Actions and Alternatives Related to General Elements of the FMP

General elements of the FMP include:

- Legal Gear and Gear Restrictions (Chapter 8 section 8.4.1)
- Incidental Catch Allowance (Chapter 8 section 8.4.2)
- Essential Fish Habitat (EFH)(Chapter 8 section 8.4.3)
- Bycatch (Including Catch-and-Release Programs)(Chapter 8 section 8.4.4)
- Fishery Observer Authority (Chapter 8 section 8.4.5)

Protected Species (Chapter 8 section 8.4.6)
Prohibited Species (Chapter 8 section 8.4.7)
Quotas or Harvest Guidelines (Chapter 8 section 8.4.8)
Allocation (Chapter 8 section 8.4.9)
Treaty Indian Fishing (Chapter 8 section 8.4.10)
Procedures for Reviewing State Regulations (Chapter 8 section 8.4.11)
Exempted Fishing (Chapter 8 section 8.4.12)
Temporary Adjustments due to Weather (Chapter 8 section 8.4.13)
Safety of Life at Sea (Chapter 8 section 8.4.14)

The general elements of the FMP mainly address fundamental requirements of the Magnuson-Stevens Act and other applicable law. For the most part these elements do not regulate the fisheries or impose constraints on how they operate and do not affect the amount of fishing, the catch in the fisheries, the status of stocks or economic values from the fisheries. Therefore the general elements are not expected to have a significant financial impact on HMS commercial fishing vessels (Chapter 9 section 9.2.4). One notable exception however, dealing with legal gear and gear restrictions, is noted below along with its potential financial impacts on fishing vessels.

2.2.1 Legal Gear and Gear Restrictions

Proposed Action

Alternative 2: Authorizes commercial legal HMS gear as harpoon, surface hook and line, drift gillnet (*14 inch stretched mesh or greater*), purse seine, and pelagic longline. Two options were initially presented for definition of drift gillnet mesh size (see below). For recreational gear authorizes rod and reel, spear, and hook and line.

Sub-Alternative 2a: Specifies that HMS drift gillnets must be *minimum stretched mesh size of 14 inches*. **Rationale:** Minimizes potential problems from additional bycatch, protected species interactions, and competition with other fishery sectors by disallowing a relatively new fishery (small-mesh gillnet) that targets HMS; precautionary in limiting additional new fishing on HMS.

This alternative is consistent with the historic use of drift gillnets used to target swordfish and sharks. It would mean that small mesh DGN gear cannot be used to target HMS.

! A description of the reasons why the action is being considered (see Chapter 8 section 8.5.5).

The FMP needs uniform definitions of gear so that management can be consistent and unambiguous, coast-wide. Sub-Alternative 2a minimizes potential problems from additional bycatch, protected species interactions, and competition with other fishery sectors by disallowing a relatively new fishery (small-mesh gillnet) that targets HMS; precautionary in limiting additional new fishing on HMS.

! A succinct statement of the objectives of, and legal basis for, the proposed rule.

The proposed action is consistent with FMP objectives (see Chapter 8 section 8.3.3), the Magnuson-Stevens Act and National Standards.

! A description and, where feasible, an estimate of the number of small entities to which the proposed rule will apply (see Chapter 9 section 9.2.5.5).

Fishers claim there may be as many as 8-10 vessels that occasionally use small-mesh drift gillnets when albacore and bluefin tuna are available. Data from the Pacific Fishery Information Network (PacFIN) fishery management database indicates there could be as many as 20 vessels which might have fished small-

mesh drift gillnets based on landing receipts for DGN vessels landing albacore and bluefin tuna, but not swordfish.

- ! A description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record.

The proposed action would not require new reporting, record-keeping, or other compliance requirements.

- ! An identification, to the extent practicable, of all relevant federal rules, which may duplicate, overlap, or conflict with the proposed rule.

The proposed action would not duplicate, overlap, or conflict with relevant federal rules.

- ! Summary of impacts (see Chapter 9 section 9.2.4.1).

Under this alternative, there would be a prohibition on the use of drift gillnets with a stretched mesh size of less than 14 inches for U.S. West Coast-based vessels. Vessels fishing small mesh (less than 14 inches stretched mesh) would be restricted to landing HMS only as an incidental catch. There would be restrictions placed on the amount (numbers or weight of landings per trip) of fish a small mesh gillnet vessel could land when fishing for other species (Chapter 9 section 9.2.4.2) under a permit issued by the state. The economic impact on the four vessels that were documented as using small mesh drift gillnets would amount to between 20% and 48% of gross receipts. They landed between 1.0 and 15.0 mt of albacore and 0.0 to 3.0 mt of bluefin tuna during the 2001 season. The vessels might make up for the lost revenue through other small mesh gillnet fisheries or simply return to using large mesh nets (14 inches sm) as all four vessel also possess shark/swordfish (large mesh DGN) permits. Vessels currently fishing large mesh nets would suffer no economic loss under this option as they would not need to modify their gear or current fishing practices. The opportunity for albacore surface hook-and-line vessels to deploy small mesh DGN gear to target albacore while on overnight trips would be preempted under this alternative. Loss of this opportunity would prevent realization of potential efficiency gains from landing more albacore per unit of time on the water.

2.3 Actions Relating to Fishery-Specific and Other Conservation and Management Measures

Conservation and management measures effecting the operations of HMS vessels are described in Chapter 8, section 8.5 of the FMP. Financial analyses of the proposed measures on HMS fishing vessels are presented in Herrick et al (2003).

2.3.1 Regulatory Alternatives for the West Coast-Based Drift Gillnet Fishery

Proposed Action

Alternative 2: Endorses or adopts in the FMP all federal conservation and management measures in place under the MMPA and ESA; adopts all state regulations for swordfish/shark DGN fishing under Magnuson-Stevens authority except limited entry programs (which will remain under states' authority); modifies an OR closure inside 1000 fm (or way point equivalent) to be in effect year round; closes EEZ waters off WA to all DGN fishers; and continues the current turtle protection closure north of Point Sur, CA to 45E N latitude (August 15 to November 15), and south of Pt. Conception to 120E W longitude during a forecasted or occurring El Niño event (August and January). **Note:** NMFS had issued a proposed and interim final rule to implement this January and August 15-31 El Niño closure stemming from the October 2000 Biological Opinion, but a modified rule is now being finalized, which would change the closure months to June, July and August. NMFS has concluded that this modified closure offers more protection for loggerheads during El Niño periods, while having less impact on the fishery than the former closure in January and August. An analysis for this alternate closure will be included in the final rule. This final rule will likely be published by the time NMFS issues the proposed regulations to implement this FMP and therefore the FMP regulations should reflect this modified closure. It would prohibit fishing with drift gillnets in the CA/OR thresher shark/swordfish DGN fishery in the U.S. waters off southern California in in waters east of the 120EW longitude, for the months of June, July, and August, when El Niño conditions are forecasted or present off southern California.

This alternative modifies the current state regulations to prohibit, year round, DGN fishing for swordfish and sharks in EEZ waters off OR east of a line approximating the 1,000 fm curve (deleting the May-August prohibition within 75 nm) and prohibits HMS DGN fishing in all EEZ waters off WA. The state of Washington currently does not allow the use of DGN gear and Oregon does not allow drift gillnets to target thresher shark, although DGN vessels have fished off both states and landed their catch in California.

! A description of the reasons why the action is being considered.

The purpose and need for the proposed action is discussed in the FMP (see Chapter 8 section 8.5.1). In summary, existing federal and state regulations for DGN fishing operations, including current states' DGN time-area closures and gear restrictions (except for an Oregon spring-summer closure) were deemed appropriate for the FMP. However, the Council concluded it was premature to federalize the states' limited entry programs, with their increase in federal costs and administrative burdens. Closures off Washington and Oregon are intended to protect the common thresher shark, sea turtles and marine mammals.

! A succinct statement of the objectives of, and legal basis for, the proposed rule.

The objectives of the proposed action are to ensure as many viable DGN fishing opportunities as possible while giving due consideration for traditional participants in the fisheries, and affording adequate protection to vulnerable shark species, marine mammals and sea turtles. The proposed action is consistent with FMP objectives, the Magnuson-Stevens Act and National Standards (see Chapter section 8.3.3).

! A description and, where feasible, an estimate of the number of small entities to which the proposed rule will apply.

Approximately 64 vessels actively participate in the DGN fishery off the U.S. West Coast (see table below). All of these vessels would be considered small businesses under the SBA standards. Therefore, there would be no financial impacts resulting from disproportionality between small and large vessels under the proposed action.

Total exvessel revenue and dependence on swordfish for the 64 West Coast-based DGN vessels with landings in 2001.

Number of Vessels	Dependence on DGN Caught Swordfish (category of swordfish revenue/total revenue)	Average Total Exvessel Revenue (\$/vessel)	Average Percent DGN Swordfish (swordfish revenue/total revenue)
9	< 5%	\$131,171	2.07%
3	< 5 - 10%	\$80,661	6.51%
6	> 10 - 15%	\$204,164	12.48%
8	> 15 - 20%	\$113,173	17.88%
8	> 20 - 25%	\$78,063	22.43%
4	> 25 - 30%	\$58,497	26.78%
5	> 30 - 40%	\$88,168	37.37%
4	> 40 - 50%	\$142,637	43.72%
5	> 50 - 60%	\$85,076	55.02%
8	> 60 - 70%	\$57,054	65.62%
4	> 70%	\$3,834	87.43%

Source: PacFIN Management Database.

- ! A description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record.

The proposed action would not require new reporting, record-keeping, or other compliance requirements.

- ! An identification, to the extent practicable, of all relevant federal rules, which may duplicate, overlap, or conflict with the proposed rule.

The proposed action would not duplicate, overlap, or conflict with relevant federal rules.

- ! Summary of impacts (Herrick et al 2003; Chapter 9 section 9.2.5.1).

Financial or private costs, and measures of fishing performance are those costs and performance measures faced by individual vessel owners. Short-run, financial or private profit realized by vessel owners from participation in the swordfish/shark DGN fishery was calculated as the difference between the annual private costs incurred during swordfish/shark fishing operations -- the annual variable costs associated with swordfish/shark fishing -- and the total exvessel revenue generated from the vessel's annual landings from swordfish/shark fishing. Only short-run measures of financial and economic performance were calculated because many DGN vessels typically engage in other types of fishing, and fixed and common costs are not allocated across types of fishing, i.e. across DGN, surface hook-and-line, or others. Although DGN vessels harvest a number of species, and will use alternative gears, no attempt was made to evaluate potential changes in fishing strategies by these vessels in response to different opportunities to harvest HMS under each of the regulatory alternatives, and what this would mean in terms of operating costs and exvessel revenues under alternative fishing strategies.

Financial impacts of each DGN regulatory alternative were evaluated based on incremental changes from the status quo; i.e., the difference between DGN exvessel private profits under the proposed action and DGN private profits under the status quo. The following table reports the estimated incremental changes in short-run financial profits for DGN vessels for each regulatory alternative relative to the status quo. Financial impacts are evaluated as the present value of changes in short-run financial profits over a 25 year time period discounted at 7% and 4% discount rates. The annual average change in short-run financial profits is also shown. The estimated changes in financial profit are based on cost and earnings surveys of industry members. Details of the financial analysis can be found in Herrick et al (2003).

NQ+ = non-quantifiable positive; NQ- = non-quantifiable negative; NC = no change from status quo; UN = unknown.

Alternative	Change in the Present Value of Short-Run Financial Profits Relative to the Status Quo (25-Year Time Horizon)	Average Annual Change in Short-Run Financial Profits Relative to the Status Quo
Drift Gillnet Alternative 1: Continues the swordfish/shark DGN fishery regulations under current state and federal authorities. (Status quo/No action)	NC	NC

Alternative	Change in the Present Value of Short-Run Financial Profits Relative to the Status Quo (25-Year Time Horizon)	Average Annual Change in Short-Run Financial Profits Relative to the Status Quo
Drift Gillnet Alternative 2 Differs from status quo with the imposition, on all DGN fishers, of a year round Oregon closure inside 1000 fm (or way point equivalent), elimination of the May-August closure inside 75 miles off Oregon, and the closure of EEZ waters off Washington. (Proposed Action)		-\$56,769
7% Discount Rate	-\$661,557	
4% Discount Rate	-\$886,843	
Drift Gillnet Alternative 3 Endorses or adopts only existing federal (MMPA, ESA) DGN regulations into FMP; defers to state regulations; no difference from status quo.		NC
7% Discount Rate	NC	
4% Discount Rate	NC	
Drift Gillnet Alternative 4: Endorses or adopts all federal conservation and management measures in place under the MMPA and ESA, and adopts state regulations under MSFCMA authority, but also includes and federalizes the states' limited entry programs; differs from status quo by the impact of federalizing states' limited entry programs. ¹		UN
7% Discount Rate	UN	
4% Discount Rate	UN	
Drift Gillnet Alternative 5: Adopts turtle time/area closures per Biological Opinion, including larger area closure north of Point Conception; differs from status quo by the impact of enlarging the closed area.		-\$247,764
7% Discount Rate	-\$2,887,333	
4% Discount Rate	-\$9,052,347	
Drift Gillnet Alternative 6 Prohibits the use of drift gillnets to take swordfish and sharks in any exclusive economic zone (EEZ) waters less than 1000 fm off Oregon <u>and</u> Washington; differs from status quo by the impact of closing this area. ²		\$310
7% Discount Rate	\$3,617	
4% Discount Rate	\$4,848	
Drift Gillnet Alternative 7: Drift gillnets could not be used to take swordfish and sharks in any exclusive economic zone (EEZ) waters north of 45° N latitude year round, including times when the northern turtle closure is not in effect (Nov 16 to Aug 14); differs from status quo by the impact of closing this area. ³		-\$8,612

Alternative	Change in the Present Value of Short-Run Financial Profits Relative to the Status Quo (25-Year Time Horizon)	Average Annual Change in Short-Run Financial Profits Relative to the Status Quo
7% Discount Rate	-\$100,365	
4% Discount Rate	-\$134,544	

Alternative	Change in the Present Value of Short-Run Financial Profits Relative to the Status Quo (25-Year Time Horizon)	Average Annual Change in Short-Run Financial Profits Relative to the Status Quo
Drift Gillnet Alternative 8 Drift gillnetting would be prohibited inside 75 nm off Oregon from May 1 to August 14 and inside the 1,000 fm curve the rest of the year, and EEZ waters off Washington would be closed year round to all, including Oregon- and California-based DGN fishers; differs from the status quo by the impact of the closures off Oregon and Washington to all fishers.		-\$56,769
7% Discount Rate	-\$661,557	
4% Discount Rate	-\$886,843	

Note: Estimates of short-run financial profits based on cost and earnings data collected through industry surveys.

¹ The incremental change due to adoption of the states' limited entry programs is unknown.

² Short-run financial profits increase with the closure under Alternative 6. Effort is assumed to be redirected outside of the closed area where catch per unit effort is greater (larger fish harvested outside the closed area) thereby yielding higher revenues for minimal difference in costs.

³ Short-run financial profits decrease with the closure under Alternative 7. Effort is assumed to be redirected outside the area where catch per unit effort is lower (smaller fish harvested outside the closed area) thereby yielding lower revenues for minimal difference in costs.

Conclusions:

The impact on DGN vessels under Alternative 2, the proposed action, primarily stems from rescinding the closure of the EEZ to DGN fishing by Oregon vessels inside 75 nm off Oregon from May 1 to August 14, closing waters inside the 1,000 fm curve off Oregon, and the entire EEZ off Washington to all fishers year round. These closures alone reduce the discounted value of short-run financial profits available to the DGN fishers formerly fishing in those areas by \$661,557 over 25 years at a 7% discount rate; \$886,843 over 25 years at a 4% discount rate. (The data used for the financial analysis of the Oregon and Washington closures were provided by fishers operating in these areas.)

Although the absolute level of decline in short-run financial profits from this measure is comparatively small in relation to the entire fishery, the entire burden is borne by the 2-3 vessels that currently fish both swordfish and thresher sharks, but especially the latter using DGN gear in these waters. Their lost opportunity represents a decline of 51% in their short-run financial profits.

2.3.2 Regulatory Alternatives for a West Coast-Based Pelagic Longline Fishery Inside the EEZ

Proposed Action

Alternative 2: Establishes a general prohibition on the use of pelagic longline gear in the EEZ (see also Legal Gear Alternative 3 Chapter 8 section 8.4.1 and Chapter 9 section 9.2.4.1, with reference to prohibition of longline gear inside the EEZ).

Proposals for research or exempted fishing permit (EFP) use of longline gear under this prohibition would be evaluated when the proposals are submitted, the latter according to EFP guidelines developed by the HMS Management Team (see Chapter 8 section 8.4.12, Exempted Fishing, Alternative 2).

! A description of the reasons why the action is being considered.

The purpose and need for the proposed action is discussed in the FMP (see Chapter 8 section 8.5.2). The proposed action continues the de facto longline prohibition throughout the EEZ. This is to avoid/prevent potential bycatch, protected species, and fishery competition problems.

! A succinct statement of the objectives of, and legal basis for, the proposed rule.

The objectives of the proposed action are to afford adequate protection to vulnerable shark species, recreational billfish, marine mammals and sea turtles. The proposed action is consistent with FMP objectives (see Chapter 8 section 8.3.3), the Magnuson-Stevens Act and National Standards.

! A description and, where feasible, an estimate of the number of small entities to which the proposed rule will apply.

There are no vessels participating in a pelagic longline fishery within the EEZ off the U.S. West Coast. Although Oregon is the only West Coast state that allows pelagic longlining within the EEZ, under a developmental fishery permit, no landings have occurred under in the fishery. All of the Oregon permittees would be considered small businesses under the SBA standards. Therefore, there would be no financial impacts resulting from disproportionality between small and large vessels under the proposed action.

! A description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record.

The proposed action would not require new reporting, record-keeping, or other compliance requirements.

! An identification, to the extent practicable, of all relevant federal rules, which may duplicate, overlap, or conflict with the proposed rule.

The proposed action would not duplicate, overlap, or conflict with relevant federal rules.

! Summary of impacts (see Chapter 9 section 9.2.5.2.1).

Financial impacts of each pelagic longline regulatory alternative within the EEZ were evaluated based on incremental changes from the status quo; i.e., the difference between pelagic longline exvessel private profits under the proposed action and pelagic longline private profits under the status quo. Because there are no empirical financial data available for this fishery, comparisons are based on the application of economic theory to potential fishing opportunities arising from the regulatory alternatives. The following table reports the estimated incremental qualitative changes in short-run financial profits for DGN vessels for each regulatory alternative relative to the status quo. Financial impacts are evaluated as the present value of changes in short-run financial profits over a 25 year time period discounted at 7% and 4% discount rates. The annual average change in short-run financial profits is also shown.

NQ+ = non-quantifiable positive; NQ- = non-quantifiable negative; NC = no change from status quo; UN = unknown.

Alternative	Change in the Present Value of Short-Run Financial Profits Relative to the Status Quo (25-Year Time Horizon)	Average Annual Change in Short-Run Financial Profits Relative to the Status Quo
Pelagic Longline w/i the EEZ Alternative 1 Current state measures would remain in place under states' authorities and there would be no new federal regulations governing longline use in the EEZ. (Status Quo/No Action)	NC	NC
Pelagic Longline w/i the EEZ Alternative 2 Establishes a general prohibition on the use of pelagic longline gear in the EEZ. (Proposed Action)	NC	NC
Pelagic Longline w/i the EEZ Alternative 3: Prohibits longlining within the West Coast EEZ by indefinite moratorium, with the potential for re-evaluation by the Council following completion of a bycatch reduction research program with pre-established strict protocols. Must prove negligible impact on protected and bycatch species. (Ocean Wildlife Campaign Proposal) ¹	NQ+	NQ+
Pelagic Longline w/i the EEZ Alternative 4 Authorizes a limited entry pelagic longline fishery for tunas and swordfish within the EEZ, with effort and area restrictions, to evaluate longline gear as an alternative to DGN gear to reduce bycatch or bycatch mortality and protected species interactions. (Industry Proposal) ¹	NQ+	NQ+
Pelagic Longline w/i the EEZ Alternative 5: Prohibits longlining within the West Coast U.S. EEZ with the potential for re-evaluation by the Council following completion of a tuna-swordfish-bycatch research experiment carried out under a qualified EFP to determine if longline gear can be fished in ways that produce bycatch and protected species interaction levels that are significantly less than by drift gillnets ($\alpha=0.05$). (Plan Team Proposal) ¹	NQ+	NQ+

¹ The expected increase in short-run financial profits associated with research findings that then lead to the development of a pelagic longline fishery within the West Coast EEZ (see Chapter 9 section 9.2.5.2.1).

Conclusions:

There are not expected to be any financial impacts associated with alternative 2 since it essentially represents the status quo. It would eliminate the Oregon longline fishery, authorized outside 25 miles under the state's developmental fisheries program permit system. However, there are no active Oregon permittees at the present time. This alternative would also eliminate the potential opportunity now available to West Coast-based commercial fishers for fishing off Oregon and California and landing in Oregon, which is currently not being exercised. The other alternatives offer potential increases in financial profits if it can be scientifically determined that there would not be an adverse impact on bycatch and protected species interactions.

2.3.3 Regulatory alternatives for the West Coast-Based High-Seas Pelagic Longline Fishery

Proposed Action

PFMC Alternative 2 plus ESA Rule: Applies to West Coast-based longline vessels fishing west of 150E W longitude all of the restrictions applied to Hawaii-based longline vessels, and adds (under ESA authority) similar requirements for longline fishing east of 150E W. longitude. Restrictions adopted are for controlling sea turtle and seabird interactions and for monitoring the fishery. Thus swordfish targeting would not be allowed on the high seas, whether fishing west or east of 150E W longitude.

Western Pacific Region Fishery Management Council longline measures that would initially apply to vessels fishing east of 150E W longitude would be all items listed under Alternative 3 in Chapter 8, section 8.5.2 of the FMP, including measures for avoidance, release and handling of turtles and seabirds, and the requirements for attending protected species workshops and for vessel monitoring systems.

! A description of the reasons why the action is being considered.

The purpose and need for the proposed action is discussed in the FMP (see Chapter 8 section 8.5.2). The proposed action would likely result in the curtailment of the West Coast fishery for swordfish until such fishing can be demonstrated not to be harmful to protected and other non-targeted species.

! A succinct statement of the objectives of, and legal basis for, the proposed rule.

The objectives of the proposed action are to provide adequate protection to sea turtles and seabirds. The proposed action is consistent with FMP objectives (see Chapter 8 section 8.3.3), the Magnuson-Stevens Act and National Standards, and the ESA.

! A description and, where feasible, an estimate of the number of small entities to which the proposed rule will apply.

There were 38 vessels participating in the West Coast-based, high seas pelagic longline fishery during 2001 (see table below). All of these vessels would be considered small businesses under the SBA standards. Therefore, there would be no financial impacts resulting from disproportionality between small and large vessels under the proposed action.

Total exvessel revenue and dependence on swordfish for the 38 West Coast-based vessels with high seas pelagic longline landings in 2001.

Number of Vessels	Dependence on High Seas Longline Caught Swordfish (category of swordfish revenue/total revenue)	Average Total Exvessel Revenue (\$/vessel)	Average Percent Longline Swordfish (swordfish revenue/total revenue)
4	< 50%	\$228,951	32.57%
3	50 - 70%	\$170,067	60.99%
3	> 70 - 80%	\$222,089	76.66%
4	> 80 - 90%	\$258,335	86.77%
13	> 90 - 95%	\$182,211	93.26%
11	> 95%	\$219,885	97.57%

Source: PacFIN Management Database.

- ! A description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record.

The proposed action would require vessels participating in the fishery to install and utilize VMS equipment. Most of the vessels already have a VMS unit so there is minimal incremental reporting. The VMS units are the property of NMFS, so there is no direct private investment or operating costs to vessels, although there may be some indirect private costs associated with the placement and operation of VMS units. To the extent the fishery is curtailed, there would be lower VMS costs.

- ! An identification, to the extent practicable, of all relevant federal rules, which may duplicate, overlap, or conflict with the proposed rule.

The proposed action would not duplicate, overlap, or conflict with relevant federal rules.

- ! Summary of impacts (see Chapter 9 section 9.2.5.2.2).

Financial impacts of each high seas pelagic longline regulatory alternative were evaluated based on incremental changes from the status quo; i.e., the difference between pelagic longline exvessel private profits under the proposed action and pelagic longline private profits under Alternative 1, the status quo (Herrick et al 2003). The following table reports the estimated incremental changes in short-run financial profits for pelagic longline vessels for each regulatory alternative relative to the status quo. Financial impacts are evaluated as the present value of changes in short-run financial profits projected over a 25 year time period, discounted at 7% and 4% discount rates. The annual average change in short-run financial profits is also shown. The annual average change in short-run financial profits is also shown. The changes in financial profit were estimated using cost and earnings data voluntarily provided by industry members.

Under the status quo the FMP would not impose regulations on the high seas, West Coast-based pelagic longline fishery. Thus, fishing could continue without regulations (except for HSFCA requirements) until regulations are established under other authorities (e.g. MSFCMA, ESA) to protect sea turtles and seabirds. Therefore, without the FMP, the future of the West Coast-based pelagic longline fishery operating on the high seas is expected to be different from recent conditions. Swordfish is the target species of this fishery, and swordfish sets may be prohibited; gear restrictions (no light sticks, minimum depth of sets, line clippers to release sea turtles) would apply; and seabird avoidance methods would be required. Longline fishing targeting tuna on the high seas out of West Coast ports might then be an alternative if swordfish targeting is prohibited, but current participants in the fishery indicate that without being able to target swordfish, the high seas longline fishery originating from West Coast ports would cease to exist (see Chapter 9 section 9.1.1, Herrick et al 2003). In view of this likelihood, the estimated financial impacts relative to Alternative 1 assume that regulations are likely in the future that would prohibit West Coast-based pelagic longliners from targeting swordfish on the high

seas, and that under those circumstances the fishery would cease to exist. Alternative 2 (the original PFMC proposal) would have allowed the fishery to continue, under *selected* restrictions, and the financial impact of Alternative 2, shown below, was based on a projection of current private profits in the fishery. Estimates of current private profits do not include the private costs that might be incurred in adopting turtle and seabird saving measures, placement of observers, and the installation and use of VMS, and any lost revenues from being unable to fish from 15°N latitude to the equator, and from 145°E W longitude to 180°E W longitude during April and May. Therefore, private profits under Alternative 2 in the table below could be overstated. Moreover, while some West Coast-based, high seas pelagic longliners harvest species other than swordfish, no attempt was made to evaluate potential changes in fishing strategies by these vessels in response to different HMS harvest opportunities under each of the regulatory alternatives, and what this would mean in terms of operating costs and exvessel revenues under alternative fishing strategies. Alternative 3 (the effective action as the ESA rule was added to Alternative 2) would prohibit swordfish targeting with implementation of the FMP. Under Alternative 3 it is assumed that the fishery would disappear in the long run in which case there is no difference from the status quo.

NQ+ = non-quantifiable positive; NQ- = non-quantifiable negative; NC = no change from status quo; UN = unknown.

Alternative	Change in the Present Value of Short-Run Financial Profits Relative to the Status Quo (25-Year Time Horizon)	Average Annual Change in Short-Run Financial Profits Relative to the Status Quo
High Seas Pelagic Longline Alternative 1: States' regulations would apply to longline fishing and landings and federal regulations may be developed under other authorities. Vessels would have to obtain HSFCA permits and file HSFCA logbooks, as is now the case. (Status Quo/No Action) ¹	NC	NC
High Seas Pelagic Longline Alternative 2: Applies to West Coast-based longline vessels fishing west of 150°E W longitude all of the restrictions applied to Hawaii-based longline vessels, but east of 150°E W longitude, applies <i>selected</i> restrictions, allowing West Coast-based vessels to target swordfish east of that line. (Original PFMC Proposed Action)		\$6,712,558
7% Discount Rate	\$78,225,581	
4% Discount Rate	\$105,645,527	
High Seas Pelagic Longline Alternative 3: Applies to West Coast-based longline vessels <u>all</u> conservation and management measures applied to Hawaii-based longline vessels to control sea turtle and seabird interactions and to monitor the fishery. (NMFS selected action) ²		NC
7% Discount Rate	NC	
4% Discount Rate	NC	

Note: Estimates of short-run, financial profits based on cost and earnings data voluntarily provided by industry members.

¹ Under Alternative 1 the FMP would not impose any regulations on the West Coast-based longline fishery targeting swordfish on the high seas. In the short-run, financial profits from this fishery would continue. However, in time regulations promulgated under other authorities are expected to eliminate this fishery, which is then the long-run status quo (see Chapter 9 section 9.1.1).

² Alternative 3 would effectively prohibit targeting swordfish by the West Coast-based high seas pelagic longline fishery.

Conclusions:

Alternative 2 would have maintained the fishery, but impose some slight additional costs on West Coast-based longliners targeting swordfish on the high seas. Fishers would have to incur some of the cost of adopting turtle and seabird saving measures, accommodating observers and using monitoring equipment such as VMS. Thus, under Alternative 2 there would have been a slight reduction in annual short-run, financial profits from those reported above. There may also be reductions in swordfish catch rates due to the adoption of turtle and seabird mitigation measures. This could further reduce short-run, financial profits. If subsequent analyses prove that swordfish longlining on the fishing grounds of the West Coast-based, high seas pelagic longline fleet results in less impact on turtles and other protected species (or that these interactions can be avoided), its further development could lead to increased short run financial profits. If on the other hand, subsequent analyses prove that swordfish longlining in the fishing grounds in the eastern north Pacific action area has potential for the same or greater impact on protected species, the fishery may not be able to continue operating unless ways to prevent jeopardy to protected species can be developed. In the latter case there are likely to be additional harvesting costs involved to perform the prevention measures which in the absence of any improvements in harvest rates, or other efficiency gains, would reduce short-run financial profits.

The fishery will be subject to regulations promulgated under other authorities which are expected to result in its disappearance in the near term. This is reflected in the status quo, Alternative 1, where financial profits become zero with a phase out of the fishery. In the longer term, however, the fishery may resume as NMFS and others determine means to allow swordfish targeting without loss of protection for sea turtles and seabirds. NMFS has recently completed research demonstrating that alternative gear and techniques hold promise for such a situation. However, until those measures can be put in effect, short-run financial profits are expected to decline by \$6.8 million per year under the preferred alternative (and the status quo).

2.3.4 Regulatory alternatives for the West Coast-Based Purse Seine Fishery

Proposed Action

Alternative 2: Opens the entire EEZ to purse seine fishing. Purse seine fishers targeting HMS from any state could fish anywhere in the EEZ, although there has been little interest in such fishing off Oregon and Washington.

! A description of the reasons why the action is being considered.

The purpose and need for the proposed action is discussed in the FMP (see Chapter 8 section 8.5.3). With few data to suggest any potential harmful bycatch or gear conflicts, this action would provide additional opportunity for purse seiners to fish for bluefin tuna in those years when they travel in fishable schools off Oregon and Washington, and could raise a potential for purse seining for albacore in the northwest portion of the EEZ.

! A succinct statement of the objectives of, and legal basis for, the proposed rule.

The objectives of the proposed action are to provide for additional purse seine fishing opportunities. The proposed action is consistent with FMP objectives (see Chapter 8 section 8.3.3), the Magnuson-Stevens Act and National Standards.

! A description and, where feasible, an estimate of the number of small entities to which the proposed rule will apply.

There were 27 vessels on average participating in the West Coast-based, coastal purse seine fishery during the 1995-99 period. All of these vessels would be considered small businesses under the SBA standards. Therefore, there would be no financial impacts resulting from disproportionality between small and large vessels under the proposed action.

- ! A description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record.

The proposed action would not require new reporting, record-keeping, or other compliance requirements.

- ! An identification, to the extent practicable, of all relevant federal rules, which may duplicate, overlap, or conflict with the proposed rule.

The proposed action would not duplicate, overlap, or conflict with relevant federal rules.

- ! Summary of impacts (see Chapter 9 section 9.2.5.3).

Financial impacts of each purse seine regulatory alternative were evaluated based on incremental changes from the status quo; i.e., the difference between expected purse seine exvessel private profits under the proposed action and private profits under the status quo. The following table reports the estimated incremental qualitative changes in short-run financial profits for pelagic longline vessels for each regulatory alternative relative to the status quo. Financial impacts are evaluated as the present value of changes in short-run financial profits over a 25 year time period discounted at 7% and 4% discount rates. The annual average change in short-run financial profits is also shown. There are no cost and earnings data available for HMS purse seine fishing off Oregon and Washington.

NQ+ = non-quantifiable positive; NQ- = non-quantifiable negative; NC = no change from status quo; UN = unknown.

Alternative	Change in the Present Value of Short-Run Financial Profits Relative to the Status Quo (25-Year Time Horizon)	Average Annual Change in Short-Run Financial Profits Relative to the Status Quo
Purse Seine Alternative 1: State area closures would remain in effect under states' authorities. (Status Quo/No Action)	NC	NC
Purse Seine Alternative 2: Opens the entire EEZ to purse seine fishing. (Proposed Action)	NQ+	NC
Purse Seine Alternative 3: Closes the area within the EEZ north of 45° N latitude to purse seine fishing to address bycatch and protected species concerns, and possible adverse impacts on other fisheries.	NQ-	NC
Purse Seine Alternative 4: Closes the EEZ off Washington to purse seine fishing, but allows it off Oregon and California.	NQ-	NC

Conclusions:

Under the proposed action the purse seine fishery for HMS could operate throughout the EEZ. This would provide more opportunity to fish for bluefin tuna in those years when they travel in fishable schools as far north as Oregon and Washington, and could raise the potential for purse seining for albacore.

Because northern bluefin tuna do not generally occur in significant numbers that far north except during periods of elevated water temperature, this would likely only result in an increase in purse seine fishing activity for northern bluefin tuna during El Niño-like conditions. By occasionally providing an additional fishing opportunity, these conditions would likely increase short-run financial profits for purse seiners when projected over the 25-year period. However, in most years there would be no change from the status quo. The financial impact of an albacore purse seine fishery developing in northern waters is likely to be positive for purse seiners, but could be negative for surface hook-and-line vessels.

Alternatives 3 and 4 would preclude existing fishing opportunities above 45E N latitude for California and Oregon vessels. This could reduce their potential financial profits in years of exceptionally good bluefin fishing in these waters, but on average there would be little change from the status quo.

2.3.5 Regulatory Alternatives that Prohibit the Sale of Certain Species (No-sale Marlin Provision)

Proposed Action

Alternative 2: Prohibits the sale of striped marlin by vessels under PFMC jurisdiction.

! A description of the reasons why the action is being considered.

The purpose and need for the proposed action is discussed in the FMP (see Chapter 8 section 8.5.4). Greater regional and national net benefits are obtained from continuing coast-wide under federal authority the long standing, traditional policy (California) of reserving this species for sport use only.

Striped marlin is considered to have far greater value as a recreational target species, and is only available seasonally.

! A succinct statement of the objectives of, and legal basis for, the proposed rule.

The objectives of the proposed action are to provide for continued HMS recreational fishing opportunities. Prohibiting its sale removes the incentive for its taking by commercial fishers. The proposed action is consistent with FMP objectives (see Chapter 8 section 8.3.3), the Magnuson-Stevens Act and National Standards.

! A description and, where feasible, an estimate of the number of small entities to which the proposed rule will apply.

There are no small entities to which the proposed rule will apply. No West Coast-based vessels fish commercially for striped marlin.

! A description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record.

The proposed action would not require new reporting, record-keeping, or other compliance requirements.

! An identification, to the extent practicable, of all relevant federal rules, which may duplicate, overlap, or conflict with the proposed rule.

The proposed action would not duplicate, overlap, or conflict with relevant federal rules.

! Summary of impacts (see Chapter 9 section 9.2.5.4).

Financial impacts of each regulatory alternative pertaining to the sale of striped marlin were evaluated based on incremental changes from the status quo; i.e., the difference between expected exvessel private profits under the proposed action and private profits under the status quo. The following table reports the estimated incremental qualitative changes in short-run financial profits for each regulatory alternative relative to the status quo. Financial impacts are evaluated as the present value of changes in short-run financial profits over a 25 year time period discounted at 7% and 4% discount rates. The annual average change in short-run financial profits is also shown.

NQ+ = non-quantifiable positive; NQ- = non-quantifiable negative; NC = no change from status quo; UN = unknown.

Alternative	Change in the Present Value of Short-Run Financial Profits Relative to the Status Quo (25-Year Time Horizon)	Average Annual Change in Short-Run Financial Profits Relative to the Status Quo
Marlin Sales Alternative 1: The sale of striped marlin would not be prohibited by federal regulation in this FMP, but would continue to be prohibited by the state of California. (Status Quo/No Action)	NC	NC
Marlin Sales Alternative 2: Prohibits the sale of striped marlin by vessels under PFMC jurisdiction. (Proposed Action)	NC	NC

Conclusions:

The proposed action will have little impact on vessels' private profits because there is virtually no change from the status quo. Striped marlin cannot now be sold, so no revenue impacts to the fishermen will ensue.

2.3.6 Regulatory Alternatives that Concern the Issuance of Commercial HMS Fishing Permits

Proposed Action

Alternative 2: Requires a federal permit for HMS vessels with a specific endorsement for each gear type (harpoon, DGN, surface hook and line, purse seine, and pelagic longline). The permit is to be issued to a vessel owner for each specific fishing vessel used in commercial HMS fishing (see Chapter 8 section 8.5.5).

Regulations implementing the FMP would establish the permitting system and set the terms and conditions for issuing a permit. Initially, there will be no qualification criteria, such as minimum amount of landings, to obtain specific gear endorsements. Any commercial HMS fisher may obtain the required gear endorsements. The permits and endorsements are subject to sanctions, including revocation, as provided by Section 308 (g) of the Magnuson-Stevens Act. Permit requirements could be changed in the future under the framework procedures (see Chapter 8 Section 8.3.4). This alternative would not eliminate existing state permit or licensing requirements, nor would federal permits under the HSFCA be eliminated.

! A description of the reasons why the action is being considered (see Chapter 8 section 8.5.5).

Permits are a standard tool used in virtually all fishery management plans to support management by:

- 1 enhancing or facilitating collection of biological, economic or social data.
- 2 facilitating enforcement of laws and regulations.
- 3 identifying those who would be affected by actions to prevent or reduce excess capacity in the fishery.

4 providing information to meet international obligations.

! A succinct statement of the objectives of, and legal basis for, the proposed rule.

The objective is to facilitate the monitoring of commercial HMS fishing activities, data collection and the enforcement of regulations. The proposed action is consistent with FMP objectives (see Chapter 8 section 8.3.3), the Magnuson-Stevens Act and National Standards.

! A description and, where feasible, an estimate of the number of small entities to which the proposed rule will apply (see Chapter 9 section 9.2.5.5).

A review of the PacFIN data base indicates that there are an estimated 1,114 vessels likely to harvest HMS. The estimated number of vessels by gear is as follows:

Surface hook-and-line:	887
Drift gillnet:	121
Pelagic longline:	47
Purse seine:	27
Harpoon:	<u>32</u>
	1,114

All of these vessels would be considered small businesses under the SBA standards. Therefore, there would be no financial impacts resulting from disproportionality between small and large vessels under the proposed action.

! A description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record.

The proposed action poses an additional reporting requirement in that it would necessitate initial permit processing, and permit renewal at five-year intervals. Permits would have endorsements for all the HMS gears that a vessel actually uses, and could have endorsements for any HMS gears the vessel might potentially use.

! An identification, to the extent practicable, of all relevant federal rules, which may duplicate, overlap, or conflict with the proposed rule.

The proposed action, although necessary, is somewhat duplicative in that a vessel may need two or three permits to harvest HMS species in the Pacific. Permits are required for separate purposes and to the extent that a vessel might have to have more than one permit to fish for highly migratory species, there is a potential for duplication or an overlap of federal requirements. Ways will be sought under the FMP to combine purposes to the extent practicable.

! Summary of impacts (see Chapter 9 section 9.2.5.5).

Financial impacts of each regulatory alternative pertaining to HMS commercial fishing permits were evaluated based on incremental changes from the status quo; i.e., the difference between expected exvessel private profits under the proposed action and private profits under the status quo. The following table reports the estimated incremental qualitative changes in short-run financial profits for each regulatory alternative relative to the status quo. Financial impacts are evaluated as the present value of changes in short-run financial profits over a 25 year time period discounted at 7% and 4% discount rates. The annual average change in short-run financial profits is also shown.

NQ+ = non-quantifiable positive; NQ- = non-quantifiable negative; NC = no change from status quo; UN = unknown.

Alternative	Change in the Present Value of Short-Run Financial Profits Relative to the Status Quo (25-Year Time Horizon)	Average Annual Change in Short-Run Financial Profits Relative to the Status Quo
Commercial Permit Alternative 1 Require no new federal permits. Federal permits under other laws (e.g. HSFCA) would remain in place, as would state permit requirements. (Status Quo/No Action)	NC	NC
Commercial Permit Alternative 2: Requires a federal permit for HMS vessels with a specific endorsement for each gear type (harpoon, DGN, surface hook and line, purse seine, and pelagic longline). The permit is to be issued to a vessel owner for each specific fishing vessel used in commercial HMS fishing. (Proposed Action)	NQ-	NQ-
Commercial Permit Alternative 3: Requires a federal permit for all vessels engaged in commercial HMS fisheries within and outside the EEZ. One permit would cover all HMS fisheries for a given vessel.	NQ-	NQ-
Commercial Permit Alternative 4: Requires a federal permit for all vessels engaged in <i>selected</i> commercial fisheries. Initial candidates for permits would be vessels engaged in DGN and longline fisheries.	NQ-	NQ-

Conclusions:

Under Alternative 2 there would be a slight reduction in financial profits due to the cost of acquiring a commercial HMS permit. Appendix F contains an estimate of permit costs for commercial vessels, about \$60.00 per vessel; a \$40 permit fee and \$20 for the time involved in filling out or confirming information on the permit registration form. The same costs would be entailed under Alternatives 3 and 4, no matter what the scope of the permit. This is an additional fixed cost, and although minor, may be disproportionate across smaller vessels engaged in HMS fisheries.

2.3.7 Regulatory Alternatives that Concern the Issuance of Recreational HMS Fishing Permits

Proposed Action

Alternative 2: Requires a federal permit for all CPFVs that fish for HMS, but an existing state permit or license for recreational vessels could meet this requirement. The Council would, however, request states to incorporate in their existing CPFV permit systems an allowance for an HMS species endorsement on the permits so that statistics could be gathered on that segment of the HMS fishery.

! A description of the reasons why the action is being considered (see Chapter 8 section 8.5.5).

As with commercial fishing permits, this would provide a mechanism for identifying the scope of the recreational fishery and the participants, so that data collection and research could be more focused and effective.

! A succinct statement of the objectives of, and legal basis for, the proposed rule.

The objective is to facilitate the monitoring of recreational HMS fishing activities, data collection and the enforcement of regulations. The proposed action is consistent with FMP objectives (see Chapter 8 section 8.3.3), the Magnuson-Stevens Act and National Standards.

! A description and, where feasible, an estimate of the number of small entities to which the proposed rule will apply (see Chapter 9 section 9.2.5.5).

There are approximately 250 CPFV vessels on the West Coast that fish HMS. All of these vessels would be considered small businesses under the SBA standards. Therefore, there would be no financial impacts resulting from disproportionality between small and large vessels under the proposed action.

! A description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record.

To the extent that states do not issue a permit for CPFVs and a federal permit would be required, the measure does impose a new reporting requirement.

! An identification, to the extent practicable, of all relevant federal rules, which may duplicate, overlap, or conflict with the proposed rule.

The proposed action would not duplicate, overlap, or conflict with relevant federal rules.

! Summary of impacts (see Chapter 9 section 9.2.5.5).

Financial impacts of each regulatory alternative pertaining to HMS recreational fishing permits were evaluated based on incremental changes from the status quo; i.e., the difference between expected exvessel private profits under the proposed action and private profits under the status quo. The following table reports the estimated incremental qualitative changes in short-run financial profits for each regulatory alternative relative to the status quo. Financial impacts are evaluated as the present value of changes in short-run financial profits over a 25 year time period discounted at 7% and 4% discount rates. The annual average change in short-run financial profits is also shown.

NQ+ = non-quantifiable positive; NQ- = non-quantifiable negative; NC = no change from status quo; UN = unknown.

Alternative	Change in the Present Value of Short-Run Financial Profits Relative to the Status Quo (25-Year Time Horizon)	Average Annual Change in Short-Run Financial Profits Relative to the Status Quo
Recreational Permit Alternative 1: Requires no new federal permits for recreational vessels, private or party/charter. (Status Quo/No Action)	NC	NC
Recreational Permit Alternative 2: Requires a federal permit for all CPFVs that fish for HMS, but an existing state permit or license for recreational vessels could meet this requirement. The Council would, however, request states to incorporate in their existing CPFV permit systems an allowance for an HMS species endorsement on permits, so that statistics could be gathered on that segment of the HMS fishery. (Proposed Action)	NQ-	NQ-

Alternative	Change in the Present Value of Short-Run Financial Profits Relative to the Status Quo (25-Year Time Horizon)	Average Annual Change in Short-Run Financial Profits Relative to the Status Quo
Recreational Permit Alternative 3: Requires a separate federal permit for all CPFVs that fish for HMS; a state permit could not be used to fill this requirement, as in Alternative 2.	NQ-	NQ-
Recreational Permit Alternative 4: Requires a federal permit for <i>all</i> recreational fishing vessels (private, party and charter/CPFV) that fish for HMS within and outside the EEZ.	NQ-	NQ-

Conclusions:

Under Alternative 2, CPFV vessels without a state permit would experience a slight reduction in financial profits due to the cost of acquiring a federal recreational HMS permit which is estimated to be about \$50.00 per vessel. This is an additional fixed cost, and even though minor, may be disproportionate across smaller vessels engaged in CPFV HMS fisheries. The same costs would be entailed under Alternatives 3 and 4, no matter what the scope of the permit. Alternative 3 could be somewhat duplicative if it were to overlap state requirements. If a vessel has a choice between a state and a federally issued permit to meet this requirement, there could be some cost savings, improved financial profits, if there is a difference in costs between state and federal permits.

2.3.8 Regulatory Alternatives that Concern Reporting Requirements

Proposed Action

Alternative 2: Requires all commercial and recreational party or charter/CPFV fishing vessels to maintain and submit logbooks to NMFS. State or existing federal logbooks could meet this requirement as long as essential data elements are present, and data are available to NMFS subject to a data exchange agreement. It authorizes adjustment of reporting requirements under a framework process.

! A description of the reasons why the action is being considered (see Chapter 8 section 8.5.6).

This action is a practical procedure for obtaining commercial (including CPFV) catch and effort data for a standardized NMFS data base on West Coast fisheries.

! A succinct statement of the objectives of, and legal basis for, the proposed rule.

The objective is to facilitate the monitoring of recreational HMS fishing activities and data collection. The proposed action is consistent with FMP objectives (see Chapter 8 section 8.3.3), the Magnuson-Stevens Act and National Standards.

! A description and, where feasible, an estimate of the number of small entities to which the proposed rule will apply (see Chapter 9 section 9.2.5.6).

The total number of vessels is estimated to be about 1,354, broken down as follows:

Purse Seine	27
Surface Hook-and-Line	887

Drift Gillnet	121
Longline	38
Harpoon	31
CPFV	<u>250</u>
Total	1,354

The number of vessels for which this requirement poses an increased record keeping burden is unknown, but expected to be significantly less, since many already are required to maintain state or existing federal logbooks which would satisfy this requirement.

- ! A description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record.

The proposed action would impose new reporting and record-keeping requirements for some HMS vessels (see above). Under the Paperwork Reduction Act, if a federal rule is requiring some kind of report, that is a burden that has to be accounted for, even if the states are handling the whole matter. Instituting the federal logbook sets in motion new reporting requirements: so many hours will be required to fill out the form, so much administrative time will be necessary, and, as a result, there will be some costs involved.

- ! An identification, to the extent practicable, of all relevant federal rules, which may duplicate, overlap, or conflict with the proposed rule.

The proposed action is designed to avoid duplication of existing federal reporting requirements. Therefore, it would not duplicate, overlap, or conflict with relevant federal rules.

- ! Summary of impacts (see Chapter 9 section 9.2.5.5).

Financial impacts of each regulatory alternative pertaining to fishing vessel reporting requirements were evaluated based on incremental changes from the status quo; i.e., the difference between expected exvessel private profits under the proposed action and private profits under the status quo. The following table reports the estimated incremental qualitative changes in short-run financial profits for each regulatory alternative relative to the status quo. Financial impacts are evaluated as the present value of changes in short-run financial profits over a 25 year time period discounted at 7% and 4% discount rates. The annual average change in short-run financial profits is also shown.

NQ+ = non-quantifiable positive; NQ- = non-quantifiable negative; NC = no change from status quo; UN = unknown.

Alternative	Change in the Present Value of Short - Run Financial Profits Relative to the Status Quo (25-Year Time Horizon)	Average Annual Change in Short-Run Financial Profits Relative to the Status Quo
Reporting Requirements Alternative 1: There would be no new federal requirements for reporting, including federal provisions for filling out Far Offshore Fishing Declarations. Existing federal reporting requirements (e.g., HSFCA reports for fishing on the high seas) and state reporting requirements would apply. (Status Quo/No Action)	NC	NC

Alternative	Change in the Present Value of Short-Run Financial Profits Relative to the Status Quo (25-Year Time Horizon)	Average Annual Change in Short-Run Financial Profits Relative to the Status Quo
Reporting Requirements Alternative 2: Requires all commercial and recreational party or charter/CPFV fishing vessels to maintain and submit logbooks to NMFS. State or existing federal logbooks could meet this requirement as long as essential data elements are present, and data are available to NMFS subject to a data exchange agreement. (Proposed Action)	NQ-	NQ-
Reporting Requirements Alternative 3 Limits new federal reporting requirements to those commercial vessels that are not already required to report under existing federal laws.	NQ-	NQ-

Conclusions:

Under Alternative 2 there would be a slight reduction in financial profits due to the cost of satisfying the proposed reporting requirements for logbooks for those vessels that do not already meet these requirements. There are also additional reporting requirements associated with the use of VMS and vessel markings. VMS would be required of longline vessels, but there are not expected to be any costs to vessels under this requirement (see Chapter 9 section 9.2.5.6). All HMS vessels would be required to have identifying numbers which would impose some additional fixed costs, and although minor, may be disproportionate across smaller vessels engaged in HMS fisheries. Under Alternative 3, financial impacts would be less because many vessels already maintain logbooks under existing federal laws (e.g. surface hook-and-line albacore vessels under the HSFCA and the NMFS voluntary logbook).

FRFA Summary

! A description of the reasons why the action is being considered (see Chapter 8 section 8.5.6).

The action is being considered to establish a conservation and management program for West Coast fisheries for highly migratory species that will provide a basis for long-term sustainability of the fisheries with full consideration of all important elements of the ecosystem, including protection as necessary for species of special concern such as sea turtles and seabirds. The action also establishes a process by which the agency with the PFMC and user groups and other interested parties can collaborate in monitoring the fisheries and identifying problems and solutions in the future.

! A succinct statement of the objectives of, and legal basis for, the final rule.

The final rule is intended to provide for immediate and long-term management of the West Coast fisheries for HMS to achieve the optimum yield from the fisheries and prevent overfishing to the extent practicable. All national standards and other provisions of the Magnuson-Stevens Act and other applicable law have been met. The FMP provides a mechanism for adjustment of management as new problems arise or as new information demonstrates a need for adjustments to improve conservation and management of the fisheries and the stocks involved. The FMP was prepared under the authority of the Magnuson-Stevens Act (16 U.S.C. 1801, et seq.). The companion rule was prepared under the authority of the Endangered Species Act (16 U.S.C. 1531 et seq.).

! A summary of significant issues raised by the public comments in response to the IRFA, (including any comments made regarding the economic effects of the rule but not specifically addressed to the IRFA), the agency's response to those comments, and any changes made to the rule as a result of the comments.

No comments were received directly addressing the IRFA, but one comment addressed the economic impacts of the NMFS decision to approve most of the FMP and then impose the additional ESA rule. That comment indicated that the added rule would effectively eliminate the West Coast longline fishery as it was dependent on swordfish and would not be able to survive targeting tuna or other species. The agency recognizes that this is a likely result in the short term. However, the agency also believes that there are or may be in the near term alternatives available to the longline fishers. First, the agency is considering a proposal that would alleviate much of the burden for longline vessels fishing out of Hawaii. That proposal effectively would reopen longline fishing for swordfish by vessels registered for use under western Pacific longline limited entry permits. If approved, this would provide an alternative fishing opportunity for most West Coast vessels, whose owners would be able to register their vessels for use under western Pacific longline limited entry permits. Second, NMFS research has demonstrated that longline fishing may be sufficiently protective of sea turtles if certain gear and bait combinations are required, especially if adopted with additional controls on overall fishing effort. The PFMC will be encouraged to explore the possible adoption of such measures to alleviate the burden placed on the West Coast fleet for the short term. In this context, it is noted that the fishery is generally at a low level in the summer and early fall, and the PFMC may be able to fashion an effective regulatory regime by the end of 2004. However, no changes have been made to the rule at this time.

- ! A description and, where feasible, an estimate of the number of small entities to which the final rule will apply (see Chapter 9 section 9.2.5.6).

The total number of vessels is estimated to be about 1,354, broken down as follows:

Purse Seine	27
Surface Hook-and-Line	887
Drift Gillnet	121
Longline	38
Harpoon	31
CPFV	<u>250</u>
Total	1,354

In addition, approximately 100 small businesses are involved with the fisheries as processors and buyers of fish taken in HMS fisheries. None of their activities will be regulated under the FMP.

- ! A description of the projected reporting, record-keeping, and other compliance requirements of the final rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record.

The action would impose new reporting and record-keeping requirements for some HMS vessels (see above). This includes a requirement that vessel owners and operators comply with all applicable regulations requiring reports to state agencies.

- ! A description of the steps the agency has taken to minimize the significant economic impacts on small entities consistent with the stated objectives of applicable statutes, including a statement of factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.

No steps have been taken to minimize the economic impacts on owners and operators of West Coast longline vessels, as there are no alternatives available that will meet the requirements of the Magnuson-Stevens Act and the ESA. The ESA requires that activities that would jeopardize the continued existence of any species listed under that act be prohibited or curtailed. None of the alternatives that allow swordfish targeting by longline vessels would meet the test of the ESA. Even the original proposal to prohibit swordfish targeting west of 150° W. Longitude and allow it east of 150° W. Longitude resulted in a jeopardy conclusion under the ESA. As noted above, however, there is reason to believe that adjustments (such as gear and bait requirements) can be made in the future management program that will alleviate the burden and allow the West Coast longline fishery to resume, albeit perhaps at a lower level. It will take some time, however, to develop and implement any such changes in management.

2.4 Literature Cited

Herrick, Jr., S.F., R. Rasmussen, D. Dealy and D. Squires. 2003. An analysis of producer surplus and private profits for the Pacific coast HMS fishing fleets. NMFS, SWFSC Admin Rep. LJ-03-07. 85 p.

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